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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHAH, SANJIV

ART UNIT PAPER NUMBER

2176

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/785,080

Applicant(s)

DRAPER, STEPHEN P.W.

Examiner

Sanjiv D. Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: Amendment filed on 5/11/05.
2. Claims 45 are newly added. Claims 1-44 are pending in the case. Claims 1, 14 and 28 are independent claims.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
2. Claims 6, 20 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The term "less volatile" in claim 6, 20 and 33 is a relative term, which renders the claim indefinite. The term "less volatile" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. Since there is no measure between volatile and less volatile, the claims are indefinite.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103 (a) which forms the basis for all Obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

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matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bittinger et al. (USPN 5,859,971 - filed 02/1996) in view of Balcha et al. (USPN 6,233,589 B1- filed on 07/1998).

Regarding independent claims 1, 14, and 28 and (dependent claims 2, 12-13, 15, 26-27, 29, and 40-41 and 45),

Bittinger discloses: A method of reducing a size of data difference representations, the method comprising: Bittinger discloses "identifying art original version of an input data stream in an original form and identifying an updated version of the input data stream in the original form", on col. 3, lines 28-67 and col. 4, lines 39-67 teaches determining if the received data stream is identical to the cache entry and determining if the received data stream is different from the cache entry to create a plurality of difference data sets);

Bittinger discloses "dividing the original form of the original version of the input data stream into separate original version output streams through the use of a pre-processor form and dividing the original form of the updated version of the input data stream into separate updated version output streams through the use of a pre-processor form", on

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col. 27, lines 44-64 teaches the data stream may be de-multiplexed to create a plurality of HTTP data stream); and

produce data difference representations (Bittinger on col. 3, lines 54-58 teaches the difference data is sent to the second computer over the external communication link and the difference data transmitted over the external communication link sent by the client computer is acquired from the external communication link and on col. 4, lines 39-46 teaches archival difference data).

However, Bittinger does not explicitly disclose "differencing each of the separate updated version output data streams with a corresponding original version output data stream".

Balcha discloses "differencing each of the separate updated version output data streams with a corresponding original version output data stream", on col. 8, line 64 - col. 9, lines 51 teaches differencing mechanism between unmodified stream (original) and modified stream (updated). Also see col. 3, lines 1-10, wherein Balcha teaches a file consisting of plurality of bit patterns that is equivalent to claimed stream. Plurality of bit patterns of same file are compared to determine difference data that is equivalent to claimed difference determination. Comparing bit patterns produce smaller difference data

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Balcha into Bittinger to provide a way to difference between an unmodified stream and a modified stream, as taught by Balcha,

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incorporated into the differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce network traffic.

Regarding dependent claims 3, 17, and 30, Bittinger discloses:

reconstructing the separate updated version output data streams from the data difference representations and the original version output data streams (Bittinger on col. 3, lines 48-67 teaches reconstructed data stream corresponding to the intercepted response from data difference between the intercepted response and server base form); and

combining the separate updated version output data streams into the original form of the updated version of the input data stream through the user of a post-processor (Bittinger on col. 4, lines 1-15 teaches combining the sever base form received over the link with the difference data received over the link to create a data stream). Regarding dependent claims 4, 18, and 31, Bittinger discloses:

wherein the original form of the original version of the input data stream is empty (Bittinger on col. 10, lines 55-59 teaches empties from the temporary storage the HTTP data stream received by the web server).

Regarding dependent claims 5, 19, and 32, Balcha discloses:

decompression algorithms (Balcha on col. 2, line 18 teaches compression/decompression algorithms).

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Balcha into Bittinger to provide a way to difference between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce network traffic.

Regarding dependent claims 6, 20, and 33, Bittinger discloses:

separate volatile components of the input data stream from less volatile components (Bittinger on col. 10, lines 39-59 teaches the received data stream is temporarily stored to interrogates components of the data stream to determine differences).

Regarding dependent claims 7, 21, and 34, Bittinger discloses:

the input data stream is executable code (Bittinger see Abstract teaches the data stream is executed by the first application).

Regarding dependent claims 8, 22, and 35, Bittinger discloses:

branch targets (Bittinger on 10, lines 39-59 teaches interrogating the received HTTP data stream).

Regarding dependent claims 9, 23, and 36, Balcha discloses:

data address (Balcha on col. 9, lines 15-51 teaches base address of the stream).

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Balcha into Bittinger to provide a way to difference between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the differencing system of Bittinger, in order to prevent to coliy the entire base file and to reduce network traffic.

Regarding dependent claims 10, 24, and 37, Balcha discloses:

instruction code (Balcha on cot. 9, lines 40-45 teaches byte codes).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Balcha into Bittinger to provide a way to difference between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce network traffic.

Regarding dependent claims 11, 25, and 38, Balcha discloses:

immediate data (Balcha on col. 9, lines 5-11 shows data within two different streams).

It would have been obvious to a. person of ordinary skill in the art at the time the invention was made to have modified Balcha into Bittinger to provide a way to difference between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce network traffic.

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Regarding dependent claim 16, Bittinger does disclose pre-processor is located in the first computer system and post-processor is located in the second computer system (See Figure 2).

Regarding dependent claims 42-44, Bittinger discloses the dividing steps on col. 27, lines 44-64. Balcha discloses "parsing the input data stream according to data type of the data stream", on col. 6, lines 31-33 teaches each stream is divided into blocks and on col. 9, lines 5-14 shows blocks of data with data type A and B in an unmodified stream S comparing with blocks of data with data type A, D, and B in the modified stream S' to determine the differences between both versions of streams.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Balcha into Bittinger to provide a way to difference between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce network traffic.

Response to Arguments

5. Applicant's arguments filed 5/11/05 have been fully considered but they are not persuasive.

Applicant argues that combination of references fails to teach two separate updated version output data streams. Examiner disagrees. Specifically Balcha teaches as recited in claim rejection col. 3, lines 1-15, wherein updated file consists of plurality of bit

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patterns, which is equivalent to claimed separate data streams. Therefore applicant argument is not persuasive

As per claims 6, 20 and 33, applicant argues that combination of references fails to teach separating volatile and less volatile components. Examiner disagrees. Specifically in view of 112 2nd rejection the claims are indefinite. Therefore as best understood, the rejection is proper.

As per claims 2-4, combination of references teaches dividing files into bit streams and comparing as described in the body of rejection. It is obvious that comparing sections of files would produce smaller difference data. Therefore applicant's arguments are not persuasive. Balcha teaches files with multiple bit streams. Therefore it is obvious that bit streams are combined to produce updated and original files.

Applicant generally alleges that the cited prior art does not teach claim limitation of any of the claims. However Examiner disagrees. Specifically arguments are not persuasive because applicant fails to differentiate between cited limitation and claimed limitation.

Rather just general allegation is made. As recited in the body of rejection combination of references does teach all claimed limitation. Therefore applicant's arguments are not persuasive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanjiv D. Shah whose telephone number is (571) 272-4098. The examiner can normally be reached on M-F 9-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sanjiv D. Shah
Primary Examiner
Art Unit 2176

S. Shah
June 10, 2005